

2008-01-24 Debuncher Momentum Cooling

Thursday, January 24, 2008
1:31 PM

Good afternoon,

While doing Deb momentum studies, we found several problems that will need an extended shut down period to investigate, i.e. more than 8 hours., The spreadsheet attached shows the problems.

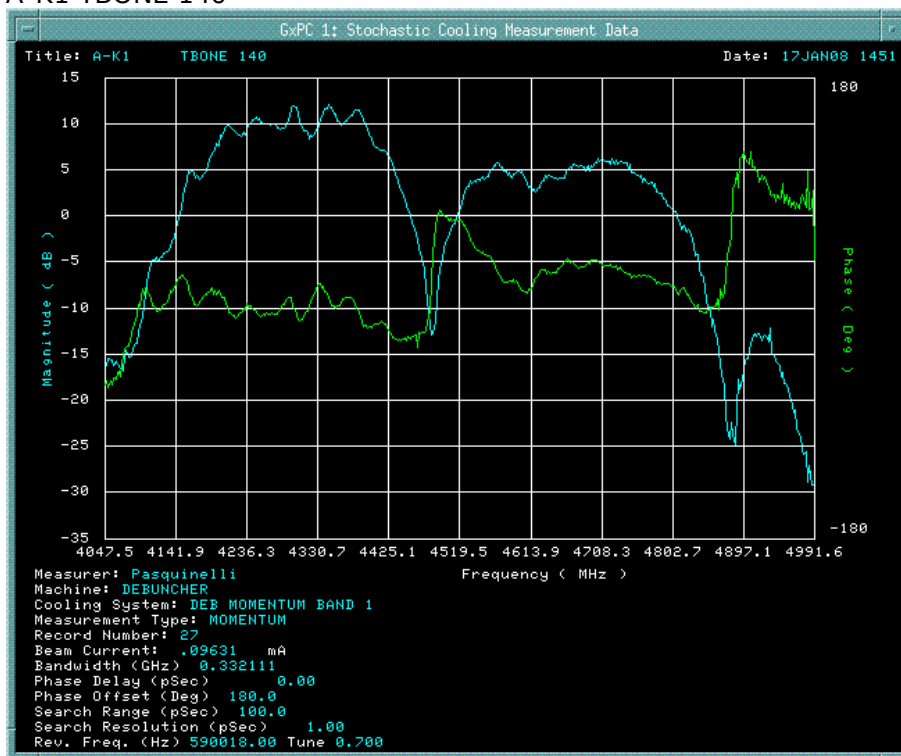
1. Momentum band 1 Horizontal lower has a ripple corresponding to about a 12 ns cable ringing. Pete thinks this could be due to a bad Cablewaves 1/2" coax connector know to have problems above 4 GHz.

2. There is something wrong in the frequency response of Deb Mom. Band 1 kickers 1-4 (vertical orientation). For some reason it is frequency selective for the upper band. The sheet shows kicker 1 and 5. Kickers 1-4 show this problem, kickers 5-8 do not. This cannot be a 4 way splitter problem and the powers were balanced at the TWT output to the Kicker. A measurement of the 4 way splitter should be done first, then we would need to measure s11 and perhaps TDR of this tank to diagnose further.

I say longer than 8 hours only because this involves dissection of a working system. Should something break in the process, it would need to be fixed, taking extra time.

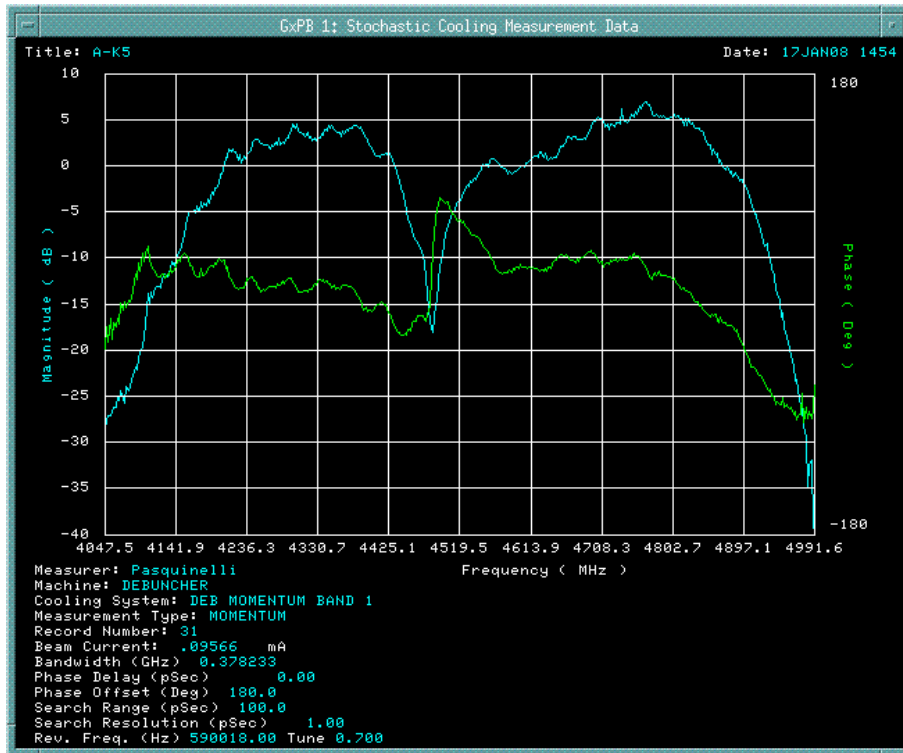
Ralph

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- One of the kickers something wrong with it.
- Debuncher Momentum Band 1.....Vertical band 1.
- Mismatch on all 4 spigots on tank.
- P31
- A-K1 TBONE 140



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- This is trombone #1. We can see that the upper band is 6dB lower than the lower band. This is bad.
- K5

- K5



- Trombone #5 does not have the same problem.